

General

Title

Ambulatory surgery: percentage of Ambulatory Surgery Center (ASC) admissions with an order for a prophylactic IV antibiotic for prevention of surgical site infection, who received the prophylactic antibiotic on time.

Source(s)

ASC Quality Collaboration. ASC quality measures: implementation guide. Version 3.2. Saint Petersburg (FL): ASC Quality Collaboration; 2015 Oct. 37 p.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of Ambulatory Surgery Center (ASC) admissions with an order for a prophylactic intravenous (IV) antibiotic for prevention of surgical site infection, who received the prophylactic antibiotic on time.

Rationale

The Centers for Medicare and Medicaid Services (CMS) Surgical Infection Prevention performance measure states, "Surgical site infections occur in 2 to 5 percent of clean extra-abdominal surgeries and up to 20 percent of intra-abdominal surgeries. Each infection is estimated to increase a hospital stay by an average of 7 days and add over \$3,000 in charges (1992 data). Patients who develop surgical site infections are 60 percent more likely to spend time in an intensive care unit (ICU), five times more likely to be readmitted to the hospital, and have twice the incidence of mortality. Despite advances in infection

control practices, surgical site infections remain a substantial cause of morbidity and mortality among hospitalized patients. Studies indicate that appropriate preoperative administration of antibiotics is effective in preventing infection. Systemic and process changes that promote compliance with established guidelines and standards can decrease infectious morbidity" (2002).

There is no literature available on variation in adherence to recommended prophylactic intravenous (IV) antibiotic timing among Ambulatory Surgery Center (ASC) providers. However, variability in the accuracy of timing of administration has been demonstrated in other settings.

Clinical Practice Guidelines

This performance measure is aligned with current surgical infection prevention guidelines recommending that prophylactic antibiotics be administered within one hour prior to surgical incision, or within two hours prior to incision when vancomycin or fluoroquinolones are used.

Evidence for Rationale

ASC Quality Collaboration. ASC quality measures: implementation guide. Version 3.2. Saint Petersburg (FL): ASC Quality Collaboration; 2015 Oct. 37 p.

Centers for Medicare & Medicaid Services (CMS). 7th statement of work (SOW). Quality of care measure specifications: Surgical infection prevention (SIP). Baltimore (MD): Centers for Medicare & Medicaid Services (CMS); 2002 Aug 1. Various p.

Primary Health Components

Ambulatory Surgery Center (ASC); surgical site infection; prophylactic intravenous (IV) antibiotic; timing

Denominator Description

All Ambulatory Surgery Center (ASC) admissions with a preoperative order for a prophylactic intravenous (IV) antibiotic for prevention of surgical site infection (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Number of Ambulatory Surgery Center (ASC) admissions with an order for a prophylactic intravenous (IV) antibiotic for prevention of surgical site infection, who received the prophylactic antibiotic on time (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

Unspecified

Extent of Measure Testing

The measures included in this implementation guide have been developed using a multi-step process. Each has been vetted with both an internal panel of technical experts and an external panel of individuals and/or organizations with relevant expertise. All of the measures have been pilot tested in Ambulatory Surgery Centers (ASCs) and assessed for validity, feasibility and reliability.

Evidence for Extent of Measure Testing

ASC Quality Collaboration. ASC quality measures: implementation guide. Version 3.2. Saint Petersburg (FL): ASC Quality Collaboration; 2015 Oct. 37 p.

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory Procedure/Imaging Center

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

Statement of Acceptable Minimum Sample Size

Does not apply to this measure

Target Population Age

All ages

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Health and Well-being of Communities

Making Care Safer

Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Safety

Timeliness

Data Collection for the Measure

Case Finding Period

Unspecified

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Encounter

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions

All Ambulatory Surgery Center (ASC) admissions with a preoperative order for a prophylactic intravenous (IV) antibiotic for prevention of surgical site infection

Note:

Admission: Completion of registration upon entry into the facility.

Order: A written order, verbal order, standing order or standing protocol.

Prophylactic antibiotic: An antibiotic prescribed with the intent of reducing the probability of an infection related to an invasive procedure. For purposes of this measure, the following antibiotics are considered prophylaxis for surgical site infections: ampicillin/sulbactam, aztreonam, cefazolin, cefmetazole, cefotetan, cefoxitin, cefuroxime, ciprofloxacin, clindamycin, ertapenem, erythromycin, gatifloxacin, gentamicin, levofloxacin, metronidazole, moxifloxacin, neomycin and vancomycin.

Exclusions

ASC admissions with a preoperative order for a prophylactic IV antibiotic for prevention of infections other than surgical site infections (e.g., bacterial endocarditis)

ASC admissions with a preoperative order for a prophylactic antibiotic not administered by the intravenous route

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Number of Ambulatory Surgery Center (ASC) admissions with an order for a prophylactic intravenous (IV) antibiotic for prevention of surgical site infection, who received the prophylactic antibiotic on time*

**Antibiotic administered on time:* Antibiotic infusion is *initiated* within one hour prior to the time of the initial surgical incision or the beginning of the procedure (e.g., introduction of endoscope, insertion of needle, inflation of tourniquet) or two hours prior if vancomycin or fluoroquinolones are administered.

Exclusions

None

Numerator Search Strategy

Encounter

Data Source

Paper medical record

Other

Instruments Used and/or Associated with the Measure

- Sample Data Collection Sheet: Prophylactic IV Antibiotic Timing
- Sample Data Collection Log: Prophylactic IV Antibiotic Timing

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

Prophylactic IV antibiotic timing.

Measure Collection Name

Ambulatory Surgery Center (ASC) Quality Measures

Submitter

Ambulatory Surgery Center (ASC) Quality Collaboration - Health Care Quality Collaboration

Developer

Ambulatory Surgery Center (ASC) Quality Collaboration - Health Care Quality Collaboration

Funding Source(s)

Ambulatory Surgery Center (ASC) providers; nursing, physician, and provider associations

Composition of the Group that Developed the Measure

Ambulatory Surgery Center (ASC) providers; nursing, physician, and provider associations; provider accrediting organizations

Financial Disclosures/Other Potential Conflicts of Interest

None

Measure Initiative(s)

Ambulatory Surgery Center Quality Reporting Program

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2015 Oct

Measure Maintenance

Unspecified

Date of Next Anticipated Revision

Unspecified

Measure Status

This is the current release of the measure.

This measure updates a previous version: ASC Quality Collaboration. ASC quality measures: implementation guide. Version 2.0. Ambulatory Surgery Center; 2014 Jan. 32 p.

Measure Availability

Source available from the [Ambulatory Surgery Center \(ASC\) Quality Collaboration Web site](#)

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For more information, contact the ASC Quality Collaboration's Executive Director, Donna Slosburg, at E-mail: donnaslosburg@ascquality.org; Web site: ascquality.org .

NQMC Status

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Production

Source(s)

ASC Quality Collaboration. ASC quality measures: implementation guide. Version 3.2. Saint Petersburg (FL): ASC Quality Collaboration; 2015 Oct. 37 p.

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